

A Major Academic Plan (MAP) is one way to complete a degree in a set number of semesters. The *example* below is an efficient strategy only. Actual plans for individual students will vary based on advisor recommendations and academic needs. Official Program Requirements including Major, General Education, Elective, and university requirements (see pg.2) are based on Catalog Year.

**Catalog Year 2018-2019**

B.A., Biology

Concentration: Biology Education

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| **Course Subject and Title** | **Cr.**  | **Min.** **Grade** | **\*GE,** **UU or UM** | **\*\*Sem. Offered** | **Prerequisite** | **Co Requisite** |
| Semester One |
| GE Objective 1: ENGL 1101 English Composition | 3 | C- | GE | F, S, SU | Appropriate placement score |  |
| GE Objective 3: MATH 1160 Applied Calculus | 3 |  | GE | F, S, SU | MATH 1143 or 1147 or equivalent |  |
| GE Objective 5: CHEM 1111 & 1111L General Chemistry I | 5 |  | GE | F, S, SU | MATH 1143 or 1147 or equivalent |  |
| GE Objective 5: BIOL 1101, 1101L Biology I & Lab | 4 |  | GE | F, S, SU | MATH 1108 | MATH 1108 |
|  Total | 15 |  |  |  |  |  |
| Semester Two |
| GE Objective 1: ENGL 1102 Critical Reading and Writing | 3 | C- | GE | F, S, SU | ENGL 1101 or equivalent |  |
| BIOL 1102 & 1102L Biology II & Lab | 4 |  |  | F, S | BIOL 1101 |  |
| CHEM 1112 & 1112L General Chemistry II & Lab | 4 |  |  | F, S, SU | CHEM 1111 & 1111L and MATH 1143 or 1147  |  |
| GE Objective 4: | 3 |  | GE | F, S, SU |  |  |
| Free Electives | 1 |  |  |  |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Three |
| BIOL 2209 & 2209L General Ecology & Lab | 4 |  |  | F, S | BIOL 1101 & 1101L and BIOL 1102 & 1102L |  |
| BIOL 2221 & 2221L Introduction to Microbiology & Lab | 4 |  |  | F, S | CEHM 1101 or 1111 & 1111L and BIOL 1101 |  |
| Biology Elective (animal biology) Upper Division | 3 - 4 |  | UM |  |  |  |
| GE Objective 2: COMM 1101 Principles of Speech | 3 |  | GE | F, S, SU |  |  |
| Free Electives | 0 - 1 |  |  |  |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Four |  |  |  |  |  |  |
| BIOL 2206 & 2207 Cell Biology & Lab | 4 |  |  | F, S | BIOL 1101 & 1102, CHEM 1111 & 1111L | CHEM 1112 & 1112L |
| Biology Elective (plant biology) | 4 |  |  |  |  |  |
| GE Objective 6: | 3 |  | GE | F, S, SU |  |  |
| Upper Division Free Electives | 4 |  | UU |  |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Five |  |  |  |  |  |  |
| BIOL 3358 Genetics | 3 |  | UM | F, S | BIOL 2206 or 2235 |  |
| BIOL 4413 Teaching Methods | 3 |  | UM | F | 16 cr. of biology and EDUC 3302 or permission of instructor |  |
| Biology Elective (plant biology) | 4 |  |  |  |  |  |
| GE Objective 4: | 3 |  | GE | F, S, SU |  |  |
| Free Electives  | 2 |  |  |  |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Six |  |  |  |  |  |  |
| BIOL 4417 Organic Evolution | 3 |  | UM | F, S | BIOL 3358 & 2209 |  |
| Biology Elective (animal biology) Upper Division | 3 - 4 |  | UM |  |  |  |
| GE Objectives 7 or 8: | 3 |  | GE | F, S, SU |  |  |
| Upper Division Free Electives | 5 |  | UU |  |  |  |
| Free Electives | 0 - 1  |  |  |  |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Seven |  |  |  |  |  |  |
| BIOL 4491 Seminar | 1 |  | UM | F, S, SU | Senior standing or permission of department  |  |
| Free Electives | 7 |  |  |  |  |  |
| GE Objective 9: | 3 |  | GE | F, S, SU |  |  |
| Upper Division Free Electives | 4 |  | UU |  |  |  |
|  Total  | 15 |  |  |  |  |  |
| Semester Eight |   |  |  |  |  |  |
| BIOL 4492 Seminar | 1 |  | UM | F, S, SU | Senior standing or permission of department |  |
| Upper Division Free Electives | 4 |  | UU |  |  |  |
| Free Electives | 7 |  |  |  |  |  |
| GE Objective 6: | 3 |  | GE | F, S, SU |  |  |
|  Total  | 15 |  |  |  |  |  |
| \*GE=General Education Objective, UU=Upper Division University, UM= Upper Division Major\*\*See Course Schedule section of Course Policies page in the e-catalog (or input F, S, Su, etc.)  |

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| **2018-2019 Major Requirements** | **CR** | **GENERAL EDUCATION OBJECTIVES****Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9** | **36 cr. min** |
| **MAJOR REQUIREMENTS** | 45-47 | 1. Written English (6 cr. min) ENGL 1101 | 3 |
| **Core Requirements** | **31** |  ENGL 1102 | 3 |
| BIOL 1101 & 1101L Biology I & Lab (4 credits counted n Objective 5) | 2. Spoken English (3 cr. min) COMM 1101 | 3 |
| BIOL 1102 & 1102L Biology II & Lab | 4 | 3. Mathematics (3 cr. min) MATH 1160 or 1153 | 3 |
| BIOL 2206, 2207 Cell Biology & Lab | 4 | 4. Humanities, Fine Arts, Foreign Lang. **(2 courses; 2 categories; 6 cr. min)** |
| BIOL 2209 & 2209L General Ecology & Lab | 4 |  |  |
| BIOL 2221 & 2221L Intro to Microbiology | 4 |  |  |
| BIOL 3358 Genetics | 3 | 5. Natural Sciences **(2 lectures-different course prefixes, 1 lab; 7 cr. min)** |
| BIOL 4413 Biology Teaching Methods | 3 | BIOL 1101 & 1101L Biology I & Lab | 4 |
| BIOL 4417 Organic Evolution | 3 | CHEM 1111 & 1111L General Chemistry I & Lab | 5 |
| BIOL 4491 and BIOL 4492 Seminars | 2 |  |  |
| MATH 1160 Applied Calculus or MATH 1153 (3 credits counted in Objective 3) | 6. Behavioral and Social Science **(2 courses-different prefixes; 6 cr. min)** |
| CHEM 1111 & 1111L General Chemistry I & Lab (5 credits counted in Objective 5) |  |  |
| CHEM 1112 & 1112L General Chemistry II & Lab | 4 |  |  |
|  |  | One Course from EITHER Objective 7 OR 8 **(1course; 3 cr. min)** |
| **Animal Biology Courses (2 courses)** | **6-8** | 7. Critical Thinking |  |
| BIOL 4441 & 4441L Mammology & Lab | 4 | 8. Information Literacy  |
| BIOL 3304 & 3304L Comparative Vertebrate Morphology & Physiology & Lab | 5 | 9. Cultural Diversity **(1 course; 3 cr. min)** |
| BIOL 3310 & 3310L Invertebrate Zoology & Lab | 4 |  |  |
| BIOL 4423 General Parasitology  | 3 | General Education Elective to reach 36 cr. min. **(if necessary)** |
| BIOL 4427 & 4427L Ichthyology & Lab | 4 |   |  |
| BIOL 4438 Ornithology  | 4 |  Total GE | 39 |
| BIOL 4459 & 4459L Fish Ecology & Lab | 4 | Undergraduate Catalog and GE Objectives by [Catalog Year](https://www.isu.edu/advising/academic-support/general-education/) |
| BIOL 4462 & 4462L Freshwater Ecology & Lab | 4 |
| BIOL 4426 & 4426L Herpetology & Lab | 4 |  |  |
| BIOL 4431 & 4431L General Entomology & Lab | 4 | **MAP Credit Summary** | **CR** |
| BIOL 4495 Animal Behavior | 4 | Major  | 45-47 |
|  |  | General Education  | 39 |
| **Plant Biology Courses (2 courses)** | **6-8** | Free Electives to reach 120 credits | 34-36 |
| BIOL 2213 Fall Flora | 2 |  TOTAL | 120 |
| BIOL 4412 & 4412L Systematic Botany | 4 |  |
| BIOL 4405 & 4405L Plant Form and Function | 4 |
| BIOL 4442 Plant-Animal Interactions | 3 | **Graduation Requirement Minimum Credit Checklist** | **Confirmed** |
| BIOL 2214 Spring Flora | 2 | Minimum 36 cr. General Education Objectives (15 cr. AAS) | x |
| BIOL 4404 Plant Physiology | 3 | Minimum 16 cr. Upper Division in Major (0 cr. Associate) |  |  x |
| BIOL 4408 Plant Ecology | 3 | Minimum 36 cr. Upper Division Overall (0 cr. Associate) |  | x |
| BIOL 4408L Plant Ecology Lab^ | 1 | Minimum of 120 cr. Total (60 cr. Associate) |  | x |
| BIOL 4404 L Plant Ecology Lab^ | 1 |  |  |  |
| **Biology Electives** (any Biology Course to meet 45 cr minimum) | **0 to 2** |  |  |
| **Advising Notes** | ***MAP Completion Status (for internal use only)*** |
| ^These are optional labs. |  | *Date* |
| Idaho teacher preparation requires 45 credits of Biology in the Single Subject Major. | *Department:*  |  |
| *CAA or COT:* | 3.23.2018 sf jh |
|  | *Registrar:*  |  |
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 Form Revised 1.24.2018